

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1. (currently amended) A camera control apparatus
2 comprising:
3 an image data receiving section for receiving from an
4 image transmitter image data captured by cameras;
5 an image data playback section for displaying the
6 received images display, on a screen, ~~the received~~
7 images;
8 a camera control area display section for displaying
9 camera symbols[[,]] which correspond to information
10 representing the locations of the cameras[[,]] and
11 the directions in which the cameras are
12 oriented[[,]] as a control region for controlling
13 the cameras connected to the image transmitter;
14 a command load section for loading the coordinates of a
15 location in the control region designated by an
16 operator;
17 a camera-to-be-operated determination section for
18 determining a camera optimal for shooting the
19 designated location;
20 a control command conversion section for converting
21 information about the coordinates loaded by the
22 command load section[[,]] into a control command
23 signal capable of being used for controlling the
24 cameras; and
25 a control command transmission section for transmitting
26 the converted control command signal to the image
27 transmitter, wherein
28 said camera-to-be-operated determination section
29 determines a camera to be panned on the basis of an
30 angle between an imaginary line connecting the
31 center of the camera symbol with the designated
32 location and the direction in which the camera is
33 currently oriented.

1 2. (canceled)

1 3. (currently amended) The camera control apparatus as
2 defined in claim 1, further comprising an employable camera
3 survey section which stores information about the positions of
4 ~~impediments~~ obstructions existing in the ~~area~~ line of sight to
5 be shot by the plurality of cameras and which eliminates a
6 camera ~~incapable of~~ undesirable for shooting the designated
7 location from candidates considered by the camera-to-be-
8 operated determination section.

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1 4. (currently amended) The camera control apparatus as
2 defined in claim 3, wherein, in the event of presence of an
3 ~~impediment~~ obstruction of the view between the area to be shot
4 and one or more of the cameras in the area where the cameras
5 are disposed, the ~~impediment~~ obstruction is displayed.

1 5. (currently amended) ~~The~~ A camera control apparatus as
2 ~~defined in claim 1, further~~ comprising:
3 an image data receiving section for receiving image data
4 captured by cameras from an image transmitter;
5 an image data playback section for displaying the
6 received images on a screen;
7 a camera control area display section for displaying
8 camera symbols which correspond to information
9 representing the locations of the cameras and the
10 directions in which the cameras are oriented as a
11 control region for controlling the cameras connected
12 to the image transmitter;

13 a command load section for loading the coordinates of a
14 location in the control region designated by an
15 operator;
16 a camera-to-be-operated determination section for
17 determining a camera optimal for shooting the
18 designated location;
19 a control command conversion section for converting
20 information about the coordinates loaded by the
21 command load section into a control command signal
22 capable of being used for controlling the cameras;
23 *Ab* a control command transmission section for transmitting
24 *cont* the converted control command signal to the image
25 transmitter;
26 an angular-shift-time calculation section for calculating
27 the time required for the camera to pan toward the
28 designated location;
29 a focus storage section for grasping the focus of a
30 plurality of cameras; and
31 a focus-shift-time calculation section for calculating
32 the time required for the camera to attain a focus
33 on the designated location,
34 wherein the camera-to-be-operated determination section
35 determines a camera which can shoot the designated
36 location in the minimum time as a camera to be
37 operated, on the basis of the time required for the
38 camera to pan toward the designated location, as
39 well as the time required for the camera to attain a
40 focus on the designated location.

1 6. (original) The camera control apparatus as defined in
2 claim 5, wherein there are displayed not only the direction in
3 which the camera is oriented but also the focusing state of
4 the camera.

1 7. (currently amended) ~~The~~ A camera control apparatus ~~as~~
2 ~~defined in claim 1, further~~ comprising:

3 an image data receiving section for receiving image data
4 captured by cameras from an image transmitter;
5 an image data playback section for displaying the
6 received images on a screen;
7 a camera control area display section for displaying
8 camera symbols which correspond to information
9 representing the locations of the cameras and the
10 directions in which the cameras are oriented as a
11 control region for controlling the cameras connected
12 to the image transmitter;
13 a command load section for loading the coordinates of a
14 location in the control region designated by an
15 operator;
16 a camera-to-be-operated determination section for
17 determining a camera optimal for shooting the
18 designated location;
19 a control command conversion section for converting
20 information about the coordinates loaded by the
21 command load section into a control command signal
22 capable of being used for controlling the cameras;
23 a control command transmission section for transmitting
24 the converted control command signal to the image
25 transmitter;
26 a view-point direction survey section for storing the
27 direction in which the operator desires to shoot the
28 designated location,
29 wherein the camera-to-be-operated determination section
30 determines a camera to be operated, from information
31 as to whether or not an image can be shot in the
32 direction designated by the view-point survey
33 section, as well as from the angle between the
34 current shooting direction of the camera and the
35 direction of an imaginary line connecting the
36 designated location with the center of the camera
37 symbol.

1 8. (original) The camera control apparatus as defined in
2 claim 7, wherein there is displayed information about the
3 direction in which the operator desires to shoot.

1 9. (currently amended) ~~The~~ A camera control apparatus ~~as~~
2 ~~defined in claim 1, further~~ comprising:

3 an image data receiving section for receiving image data

4 captured by cameras from an image transmitter;

5 an image data playback section for displaying the

6 received images on a screen;

7 a camera control area display section for displaying

8 camera symbols which correspond to information

9 representing the locations of the cameras and the

10 directions in which the cameras are oriented as a

11 control region for controlling the cameras connected

12 to the image transmitter;

13 a command load section for loading the coordinates of a

14 location in the control region designated by an

15 operator;

16 a camera-to-be-operated determination section for

17 determining a camera optimal for shooting the

18 designated location;

19 a control command conversion section for converting

20 information about the coordinates loaded by the

21 command load section into a control command signal

22 capable of being used for controlling the cameras;

23 a control command transmission section for transmitting

24 the converted control command signal to the image

25 transmitter;

26 an angular-shift-time calculation section for calculating

27 the time required for the camera to pan toward the

28 designated location;

29 a zoom storage section for grasping the degree of zoom of

30 a plurality of cameras;

31 a zoom-shift time calculation section for calculating the
32 time required for a camera to zoom in order to
33 display an image of the designated range; and
34 a zoom range display section for displaying, in the
35 camera control region, a range to be zoomed,
36 wherein the camera-to-be-operated determination section
37 determines a camera to be operated, from the time
38 required for the camera to pan toward the designated
39 location after the operator has designated a desired
40 range in the control region and the time required
41 for the camera to zoom in or out for attaining focus
42 on the designated range.

1 10. (original) The camera control apparatus as defined in
2 claim 1, wherein an image captured by the camera selected by
3 the camera-to-be-operated determination section is displayed
4 greater than images captured by other cameras.

1 11. (original) The camera control ~~apparatus~~ method as
2 defined in claim 13, wherein, when a camera most optimal for
3 shooting the designated location is selected, an image
4 captured by the thus-selected camera is displayed greater than
5 images captured by other cameras.

1 12. (currently amended) ~~The A~~ camera control apparatus as
2 ~~defined in claim 1,~~ further comprising:

3 an image data receiving section for receiving image data
4 captured by cameras from an image transmitter;
5 an image data playback section for displaying the
6 received images on a screen;
7 a camera control area display section for displaying
8 camera symbols which correspond to information
9 representing the locations of the cameras and the

10 directions in which the cameras are oriented as a
11 control region for controlling the cameras connected
12 to the image transmitter;
13 a command load section for loading the coordinates of a
14 location in the control region designated by an
15 operator;
16 a camera-to-be-operated determination section for
17 determining a camera optimal for shooting the
18 designated location;
19 a control command conversion section for converting
20 information about the coordinates loaded by the
21 command load section into a control command signal
22 capable of being used for controlling the cameras;
23 a control command transmission section for transmitting
24 the converted control command signal to the image
25 transmitter; and
26 a zoom-scale determination section for determining the
27 zoom scale of each of the cameras which have been
28 examined as being optimal for shooting the
29 designated location by the camera to-be-operated
30 determination section, in sequence in which the
31 cameras are arranged.

1 13. (currently amended) A camera control method
2 comprising steps of:
3 displaying images captured by a plurality of cameras, a
4 map relating to a location whose image is captured
5 by the plurality of cameras, camera symbols
6 representing the locations of the cameras in the
7 map, and directions in which the cameras are
8 oriented;
9 selecting a camera optimal for shooting a location
10 designated by an operator;
11 and
12 controlling the selected camera such that the camera is
13 panned toward the designated location, wherein, from

14 among the plurality of cameras, there is selected a
15 camera involving a minimum angle between the
16 direction in which the camera is currently oriented
17 and the imaginary line connecting the center of the
18 camera symbol with the designated location.

1 14. (canceled) .

1 15. (original) The camera control method as defined in
2 claim 13, wherein the camera which is blocked by an impediment
3 and cannot shoot the designated location is eliminated from
4 candidates for selection of a camera to be operated.

1 16, (original) The camera control method as defined in
2 claim 15, wherein, in the event of presence of an impediment
3 in the area where the cameras are disposed, the impediment is
4 displayed.

1 17. (currently amended) ~~The~~ A camera control method as
2 ~~defined in claim 13, comprising the steps of:~~
3 displaying images captured by a plurality of cameras, a
4 map relating to a location whose image is captured
5 by the plurality of cameras, camera symbols
6 representing the locations of the cameras in the
7 map, and directions in which the cameras are
8 oriented;
9 selecting a camera optimal for shooting a location
10 designated by an operator; and
11 controlling the selected camera such that the camera is
12 panned toward the designated location,
13 wherein, from among the plurality of cameras, a camera
14 which can shoot the designated location within the

15 minimum period of time is selected on the basis of
16 the time required for the camera to pan toward the
17 designated location from the direction in which the
18 camera is currently oriented and the time required
19 for the camera to zoom into the designated location,
20 and the selected camera is panned toward the
21 designated location and attains focus on the
22 designated location.

1 18. (original) The camera control method as defined in
2 claim 17, wherein there are displayed not only the direction
3 in which the camera is oriented but also the focusing state of
4 the camera.

1 19. (original) The camera control method as defined in
2 claim 13, wherein cameras incapable of shooting an image from
3 a direction desired by the operator are eliminated from
4 candidates camera-to-be-operated.

1 20. (original) The camera control method as defined in
2 claim 19, wherein there is displayed information about the
3 direction in which the operator desires to shoot.

1 21. (currently amended) ~~The A~~ camera control system as
2 defined in claim 13, method comprising the steps of:

3 displaying images captured by a plurality of cameras, a
4 map relating to a location whose image is captured
5 by the plurality of cameras, camera symbols
6 representing the locations of the cameras in the
7 map, and directions in which the cameras are
8 oriented;

9 selecting a camera optimal for shooting a location
10 designated by an operator;and
11 controlling the selected camera such that the camera is
12 panned toward the designated location,
13 wherein, from among the plurality of cameras, there is
14 selected a camera which can shoot the designated
15 range within the minimum period of time, on the
16 basis of the time required for the camera to pan
17 toward a designated range from the direction in
18 which the camera is currently oriented after the
19 camera has received an instruction for designating a
20 desired range from the operator, and the time
21 required for the camera to attain focus on the
22 designated range from the range on which the camera
23 is currently focused, and the selected camera is
24 panned toward the designated location, to thereby
25 attain focus on the designated range.

1 22. (currently amended) ~~The camera control method as~~
2 ~~defined in claim 13,~~ A camera control method comprising the
3 steps of:

4 displaying images captured by a plurality of cameras, a
5 map relating to a location whose image is captured
6 by the plurality of cameras, camera symbols
7 representing the locations of the cameras in the
8 map, and directions in which the cameras are
9 oriented;
10 selecting a camera optimal for shooting a location
11 designated by an operator;
12 and
13 controlling the selected camera such that the camera is
14 panned toward the designated location,
15 wherein, when cameras optimal for shooting the designated
16 location are selected, images captured by the
17 cameras are displayed at respective scales, in
18 sequence in which the cameras are arranged.